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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/522,834	03/10/2000	Thomas F Callahan	01720/UREA-9701-C	4824
27656	7590	07/12/2005	EXAMINER	
MICHAEL J. WEINS 31 BANK STREET LEBANON, NH 03766			LEE, PING	
			ART UNIT	PAPER NUMBER
			2644	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/522,834	Applicant(s) CALLAHAN, THOMAS F	
	Examiner Ping Lee	Art Unit 2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 16, 17 and 19-36 is/are pending in the application.
- 4a) Of the above claim(s) 16, 19, 20 and 31-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17, 21-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Newly amended/submitted claims 16, 19, 20 and 31-36 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the invention defined by original claim 1-18 does not specify an ear cup including a peripherally extending cushion which are deformable at area surrounding the ears and the cushion comprises a material providing a damping ratio greater than 0.75. The original claims 5, 10, 15 and 18 specify an ear cup. However, the defined ear cup does not require the limitation and is in a different embodiment comparing with the invention in the newly amended/submitted claims 16, 19, 20 and 31-36.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 16, 19, 20 and 31-36 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Information Disclosure Statement***

2. The information disclosure statement filed 3/10/04 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which

caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Huntress (US 4,055,233).

Regarding claim 17, Huntress discloses a noise barrier apparatus for preventing external noise from causing noise in an ear on a side of a user's head, the noise barrier apparatus comprising:

an ear adapter body having a first end (end of 6 as shown in Figs. 1 and 4) and a second end (end of 2 as shown in Figs. 1 and 4) forward of said first end and insertable into the ear canal of the ear (Fig. 3), said ear adapter body defining an enclosed audio chamber including the ear canal of the ear, said ear adapter body further having,

an ear canal section (2) adjacent said second end,

an outer ear section (6) adjacent said first end, and

a concha section (between 2 and 6) disposed between said ear canal and outer ear sections (as shown in Fig. 3), whereby said ear canal section

(2) is disposed in the ear canal of the ear, the concha section (between 2 and 6) is disposed adjacent the concha region of the ear, and the outer ear section (6) is disposed outside the ear when said second end of said ear adapter body is inserted into the ear canal of the ear (see Fig. 3); and a concha cushion (4) to bear against the concha region of the ear (see Fig. 3), said concha cushion (4) being mounted to said concha section of said ear adapter body and positioned so as to be interposed between the concha region of the ear and said concha section (between 2 and 6) and being configured to encircle the ear canal entrance when said second end of said ear adapter body is inserted into the ear canal (see Fig. 3),

said concha cushion being deformable so as to be conformable to the concha region of the ear when held thereagainst (col. 2, line 65+); and

wherein said concha cushion comprises a material which is at least partially plastically deformable (col. 2, lines 45-49).

5. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Scott (US 4,878,560).

Regarding claim 17, Scott discloses a noise barrier apparatus for preventing external noise from causing noise in an ear on a side of a user's head, the noise barrier apparatus comprising:

an ear adapter body having a first end (end of 14 as shown in Fig. 2) and a second end (13 as shown in Fig. 2) forward of said first end and insertable into the ear canal of the ear (Fig. 2), said ear adapter body defining an enclosed audio chamber including the ear canal of the ear, said ear adapter body further having,

an ear canal section (30) adjacent said second end,  
an outer ear section (section contains 14) adjacent said first end, and  
a concha section (between the section inside the canal and the section outside the canal as shown in Fig. 2) disposed between said ear canal and outer ear sections (as shown in Fig. 2), whereby said ear canal section (30) is disposed in the ear canal of the ear, the concha section (between the section inside the canal and the section outside the canal as shown in Fig. 2) is disposed adjacent the concha region of the ear (col. 1, lines 55-60), and the outer ear section (section contains 14) is disposed outside the ear when said second end of said ear section (6) is disposed outside the ear when said second end of said ear adapter body is inserted into the ear canal of the ear (see Fig. 2); and a concha cushion (5) to bear against the concha region of the ear (see Fig. 1), said concha cushion (4) being mounted to said concha section (between the section inside the canal and the section outside the canal as shown in Fig. 2) of said ear adapter body and positioned so as to be interposed between the concha region of the ear and said concha section (between the section inside the canal and the

section outside the canal as shown in Fig. 2) and being configured to encircle the ear canal entrance when said second end of said ear adapter body is inserted into the ear canal (see Fig. 2),

said concha cushion being deformable so as to be conformable to the concha region of the ear when held thereagainst (col. 1, line 65+); and

wherein said concha cushion comprises a material which is at least partially plastically deformable (col. 1, lines 64-66; col. 2, lines 40-46).

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huntress in view of Clark (US 4,299,303).

Regarding claims 23 and 29, Huntress fails to show the noise barrier device holding apparatus. Clark teaches how to securely hold the tubes of the stethoscope by using the headband (12) and earcups to further eliminate the noise. Thus, it would have been obvious to one of ordinary skill in the art to modify Huntress in view of Clark by using the headband and the earcups to hold the stethoscope's sound tubes in order to provide more noise attenuation and securer mounting.

8. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huntress in view of Chaudhary et al (US 6,187,232).

Regarding claim 22, Huntress fails to teach the damping ratio of the cushion material. However, Huntress teaches that the cushion is used to attenuate noise (col. 3, lines 10-13). Chaudhary et al (hereafter Chaudhary) teaches a cushion material for providing sound insulation having a damping ratio greater than 0.75 (col. 3, lines 47-51). This material is soft and flexible and thin. Thus, it would have been obvious to one of ordinary skill in the art to modify Huntress by replacing the cushion material with the material as suggested in Chaudhary in order to provide better sound insulation.

9. Claims 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huntress in view Clark as applied to claim 23 above, and further in view of Chaudhary.

Regarding claims 25 and 27, Huntress fails to teach the damping ratio of the cushion material. However, Huntress teaches that the cushion is used to attenuate noise (col. 3, lines 10-13). Chaudhary et al (hereafter Chaudhary) teaches a cushion material for providing sound insulation having a damping ratio greater than 0.75 (col. 3, lines 47-51). This material is soft and flexible and thin. Thus, it would have been obvious to one of ordinary skill in the art to modify Huntress and Clark by replacing the cushion material with the material as suggested in Chaudhary in order to provide better sound insulation.

10. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huntress in view of Chifei et al (US 6,265,475).



Regarding claim 21, Huntress fails to show the sheath. Chifei et al (hereafter Chifei) suggests to enclose the cushion using a skin (read as the claimed sheath) to increase sound attenuation (col. 3, lines 16). Thus, it would have been obvious to one of ordinary skill in the art to modify Huntress in view of Chifei by enclosing the cushion using a sheath in order to provide more sound attenuation.

11. Claim 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Huntress in view of Clark as applied to claim 23 above, and further in view of Chifei.

Regarding claim 24, Huntress fails to show the sheath. Chifei suggests to enclose the cushion using a skin (read as the claimed sheath) to increase sound attenuation (col. 3, lines 16). Thus, it would have been obvious to one of ordinary skill in the art to further modify Huntress and Clark in view of Chifei by enclosing the cushion using a sheath in order to provide more sound attenuation.

12. Claims 26, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huntress in view of Clark and Chaudhary as applied to claims 25 and 27 above, and further in view of Chifei.

Regarding claim 24, Huntress fails to show the sheath. Chifei suggests to enclose the cushion using a skin (read as the claimed sheath) to increase sound attenuation (col. 3, lines 16). Thus, it would have been obvious to one of ordinary skill in the art to further modify Huntress, Clark and Chaudhary in view of Chifei by enclosing the cushion using a sheath in order to provide more sound attenuation.

13. Claims 23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott in view of Clark (US 4,299,303).

Regarding claims 23 and 29, Scott fails to show the noise barrier device holding apparatus. Scott suggests that the device is used to support the stethoscope. Clark teaches how to securely hold the tubes of the stethoscope by using the headband (12) and earcups to further eliminate the noise. Thus, it would have been obvious to one of ordinary skill in the art to modify Scott in view of Clark by using the headband and the earcups to hold the stethoscope's sound tubes in order to provide more noise attenuation and securer mounting.

14. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott in view of Chaudhary (US 6,187,232).

Regarding claim 22, Scott fails to teach the damping ratio of the cushion material. However, Scott suggests that other material could be used (col. 2, lines 43-46). Chaudhary teaches a cushion material for providing sound insulation having a damping ratio greater than 0.75 (col. 3, lines 47-51). This material is soft and flexible and thin. Thus, it would have been obvious to one of ordinary skill in the art to modify Scott by replacing the cushion material with the material as suggested in Chaudhary in order to provide better sound insulation with a soft and thin material.

15. Claims 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott in view of Clark as applied to claim 23 above, and further in view of Chaudhary.

Regarding claims 25 and 27, Scott fails to teach the damping ratio of the cushion material. However, Scott suggests that other material could be used (col. 2, lines 43-46). Chaudhary teaches a cushion material for providing sound insulation having a damping ratio greater than 0.75 (col. 3, lines 47-51). This material is soft and flexible

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and thin. The cushion for the ear, one would have expected, should be soft (more comfortable) and thin (less bulky on concha region). Thus, it would have been obvious to one of ordinary skill in the art to modify Scott and Clark by replacing the cushion material with the material as suggested in Chaudhary in order to provide better sound insulation with a soft and thin material.

16. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott in view of Chifei (US 6,265,475).

Regarding claim 21, Scott fails to show the sheath. Chifei suggests to enclose the cushion using a skin (read as the claimed sheath) to increase sound attenuation (col. 3, lines 16). Thus, it would have been obvious to one of ordinary skill in the art to modify Scott in view of Chifei by enclosing the cushion using a sheath in order to provide more sound attenuation.

17. Claim 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Scott in view of Clark as applied to claim 23 above, and further in view of Chifei.

Regarding claim 24, Scott fails to show the sheath. Chifei suggests to enclose the cushion using a skin (read as the claimed sheath) to increase sound attenuation (col. 3, lines 16). Thus, it would have been obvious to one of ordinary skill in the art to further modify Scott and Clark in view of Chifei by enclosing the cushion using a sheath in order to provide more sound attenuation.

18. Claims 26, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott in view of Clark and Chaudhary as applied to claims 25 and 27 above, and further in view of Chifei.

Regarding claim 24, Scott fails to show the sheath. Chifei suggests to enclose the cushion using a skin (read as the claimed sheath) to increase sound attenuation (col. 3, lines 16). Thus, it would have been obvious to one of ordinary skill in the art to further modify Scott, Clark and Chaudhary in view of Chifei by enclosing the cushion using a sheath in order to provide more sound attenuation.

### ***Response to Arguments***

19. Applicant's arguments filed 4/8/05 have been fully considered but they are not persuasive.

Applicant argued that Huntress and Scott fail to show a material which is at least partially plastically deformable.

It is noticed that applicant defines the material being partially plastically deformable being a material having two distinct characteristics. One of them is the material will not return to its original shape ("partially return to its original shape"). The other one is the material will return to its original shape ("return fully"). This implies that the material is elastic and resilient. Huntress suggests "deformable rubber", which clearly falls into the definition as provided by applicant. Scott suggests to use any plastic material (col. 2, lines 43-45) or elastic plastic material, which clearly falls into the definition as well. Applicant also defines that the material will slowly return to its original or partial shape, but fails to define what is being considered slow. Since Huntress' or Scott's material will return to its original or partial shape in a time period, so Huntress or Scott discloses the claimed invention.

Applicant argued that Scott's device cannot provide the function of a sound barrier.

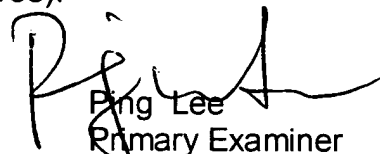
Although Scott fails to mention sound barrier, one can expect that the noise will inherently be reduced when the opening of the ear canal is partially blocked by the Scott's earmold. The claimed invention is a noise barrier to prevent external noise from causing noise in an ear. Scott's device will prevent some, if not all, external noise from entering the ear canal since majority of the ear canal is blocked. The claimed invention does not specify that all external noise will be barred from entering the ear canal. Even if the opening of the ear canal is being completely blocked (for example, the earplug used for swimming), one skilled in the art would have expected that some sound will still be able to enter the canal. Therefore, Scott discloses the claimed invention.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522.

The examiner can normally be reached on Monday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ping Lee  
Primary Examiner  
Art Unit 2644

pwl